

CLAIMS (with indication of amended or new):

1. (AMENDED) An apparatus for forming an ultra-thin film of a semiconductor device comprising:

a reactive chamber consisting of an upper container and a lower container junctioned by an O-ring;

a susceptor installed inside the reactive chamber for supporting a target substrate on which an ultra-thin film is to be formed;

at least two gas supply pipes for supplying at least two material gases into the reactive chamber to form an ultra-thin film on the substrate;

at least two gas supply controllers respectively installed at the gas supply pipes to repeatedly supply the material gases alternately into the chamber;

a gas outlet for discharging the gas from the chamber;

at least two remote plasma generators installed outside the reactive chamber and respectively connected to the gas supply pipes for activating the material gases supplied through the gas supply pipes; and

a temperature controller for controlling the temperature inside the chamber in a heat exchange method, the temperature controller being installed to surround the chamber.